

Remarks

1. Claim Amendments

The claim amendments submitted herewith conducted in the independent claims are based on the original disclosure of the present application on, for example, page 14, lines 4 to 10, page 8, line 6 as well as the portions on page 14, first paragraph, last sentence, and page 15, third paragraph, first sentence. The enclosed set of claims also comprises additional dependent claims among which Claim 32 is based on page 12, lines 33 and 34, Claims 33 and 34 are based on items b, c, d and f as well as g on pages 28 and 29 in combination with the table on page 21 and the corresponding description and the second paragraph on page 24, as well as the second and third paragraphs on page 20, Claim 35 is supported by the description on page 26, for example, and Claims 36 and 37 are based on the original description, for example, page 37, second paragraph, third sentence, the paragraph bridging pages 38 and 39, as well as the paragraph bridging pages 39 and 40. The claims directed to the conversion of the data stream have been deleted.

2. Drawings

The Examiner has objected to the drawings under 37 CFR 1.83(a). In connection with the objection to the drawings in view of Claims 9, 15, 19, and 20, Applicant notes that Claim 15 has been cancelled and the objection thereto is deemed moot. With regard to Claims 9, 19, and 20, Applicant does not understand how the figures are required to show the predetermined order of the data packets as to whether they are removable or non-removable. Clearly, the figures taken in combination with the specification teach this aspect of the invention. Further, the data streams clearly are shown in Figure 1 and Figure 2. Data packets are shown in connection with these figures. Should the Examiner maintain this objection, then the Applicant requests that the Examiner provide further information to the Applicant to enable the Applicant to address the Examiner's concerns more completely.

Likewise, with regard to the Examiner's objection to Claim 10. Applicant's figures show data packets and Applicant describes the various types of data packets clearly in the specification. Applicant does not understand the Examiner's rejection and asks for further guidance in this regard in connection with the non-removable data packet of Claim 10.

With regard to the Examiner's objection to Claim 7, 15, and 16, Applicant notes that Claims 15 and 16 are cancelled and therefore this objection is moot with regard to these claims. With regard to Claim 7, Applicant has amended the claim to cancel the concept of a "reference number" and replaces that concept with that of a - - identifier. Applicant deems this revision of the claim to overcome the Examiner's objection.

3. Specification

Applicant has corrected Claim 7 as discussed above and deems the objection to the Specification overcome in view of that correction. With regard to the informalities concerning the word "remainder", Applicant submits herewith replacement pages 2, 4, 5, 7, and 8 in which the word "reminder" has been replaced with the word - - remainder- -.

4. Claim Objections

The wording of pendent Claim 7 has been adapted to the first paragraph on page 20.

5. Claim Rejections – 35 USC 101

With regard to the objection against Claim 25, Applicant has made amendments such that Claim 25 now falls squarely within a statutory class, i.e. as a process.

5. Claim Rejections – 35 USC 103

In general, the claimed invention is directed to data packet transmission of information signals. The data packets are received at the decoder, buffered, and then processed. The decoder is known to have a minimum buffer size. To be even more precise, the encoder assumes that the decoder can store or buffer a certain minimum amount of data within its buffer. The decoder, in turn, removes data from the buffer in units of access units. It is a basic idea of the claimed invention that it is possible to forecast exactly the worst-case-scenery at the decoder's side with respect to the filling state of the decoder's buffer when the data stream is constructed, such that access unit borders remain at the same positions, even if data packets of a removable data packet type are removed from the data stream. A further idea of the claimed invention is that this border consistency, along with the border detectability, is obtained despite data packet removals when a predetermined order is defined among the data packet types. This basic idea of the claimed application is not mentioned in any of the prior art documents.

The subject matter of the new independent claims is new and inventive over the prior art which the Examiner relies upon in the Office Action. Tanaka (US 5,140,417) describes a fast packet transmission system of video data where the recipient of receiving terminal 11 is able to cope with cells of the digital video data sent being discarded. To this end, the receiving terminal 11 comprises a discarded data compensating means that discriminates a sequential number written in a certain area of each cell and detects cell discard if any number is omitted (cp. col. 5, lines 32, 33). In particular, it is described that each cell comprises an AAL header A2 comprising data indicating whether the cell is leading a packet it belongs to or not, and another data indicating the relationship between that cell and the adjacent one (sequential number of the cell) (cp. col. 10, second paragraph). In particular, it is described that the receiving terminal 11 detects which cell has been discarded by reading A2. This detection is performed by the AAL header analyzing section 1073 as described in the penultimate paragraph of column 10.

The brief discussion of Tanaka immediately reveals the following differential features between the subject matter of the claimed invention in accordance with the new independent claims and the prior art presented by Tanaka. Firstly, the receiving terminal of Tanaka investigates the sequential numbers of the cells to determine as to whether a certain cell has been discarded or not. Thus, Tanaka does not teach or suggest the use of a predetermined order among certain data packet types to detect borders between successive access units. Even the border between packets is not detected in the way determined in the independent decoder claims of the present application reading: "detecting a border between successive access units by use of the predetermined order by detecting an existence of the border between two successive access units each time a data packet of a first data packet type precedes a data packet of a second data packet type that, in accordance with the predetermined order, precedes the first data packet type." Tanaka teaches away from the solution by stating that the data within a header A2 is used to indicate the beginning of a new packet. Further, Tanaka does not comprise any hint to define a predetermined order among various cell types to determine packet borders. Although, Tanaka describes differing between different cell types by use of the ATM cell header A1, for example, (cp. col. 10, third sentence), Tanaka does not describe that there is any order among these different kinds of cell types. Even more severe, Tanaka does not disclose that the order among such cell types should be selected such that same allows a detectability of the packet borders.

Due to the latter deficiency of the disclosure of Tanaka, the subject matter of the coding claims of the present application is also neither anticipated nor rendered obvious by the prior art. To be more specific, Tanaka neither teaches nor suggests arranging the different cell types in such an order that packet borders would be detectable by use of such predetermined order, and that, even when a data packet of the removable data packet type is removed from the data stream, the data packets remain associated with the respective access unit they originally belong to before removal.

The above considerations also apply when considering the disclosure of Herrmann (US 6,522,651 B2), because Herrmann does also not suggest the use of an order among packet types to detect borders between successive access units.

As a precautionary measure only, the Examiner's attention is additionally drawn to the new dependent claims. Claim 32 additionally defines that more than one data packet of a same data packet type belongs to one access unit. Claim 33 defines some data packet types according to the description of the present application with such data packet types and a predetermined order among same not being defined anyway in Tanaka. Claim 34 defines even more data packet types. Lastly claims 36 and 37 define that the encoder forecasts the buffer space consumption at the decoder's side based on the access units and their borders of their access unit sizes, respectively.

Accordingly, the application is now considered to be in allowable condition. The Examiner is respectfully requested to withdraw the various objections and rejections, such that the application may pass to issuance as a Letters Patent.

Should the Examiner deem it helpful, he is encouraged to contact Applicant's attorney, Michael A. Glenn, at 650-474-800.

Respectfully submitted,



Michael A. Glenn
Registration No. 30,176

Customer No. 22862